

WHAT IS CLAIMED IS:

1. A method comprising:
 - a. providing a paper substrate; and
 - b. applying a coloring composition comprising a binder and a coloring agent to form a colored paper, wherein the coloring composition is non-white.
2. The method of claim 1, wherein the coloring composition further comprises at least one of a filler, a viscosity modifier, a dispersant, a lubricant, and a pH adjusting agent.
3. The method of claim 1, wherein the coloring composition further comprises a filler, a viscosity modifier, a dispersant, and a lubricant.
4. The method of claim 1, wherein the coloring agent further comprises a cationic fixing agent.
5. The method of claim 1, wherein the coloring composition does not contain a cationic fixing agent.
6. The method of claim 1, wherein the coloring agent is selected from the group consisting of a direct dye, a basic dye, an acid dye, a reactive dye, a solvent dye, a dispersed dye, a leather dye, a natural dye, a sulfur dye, a vat dye, a synthetic pigment, a naturally occurring pigment, a security dye, and mixtures thereof.
7. The method of claim 1, wherein the binder is selected from the group consisting of a styrene butadiene polymer dispersion, a styrene butadiene acrylonitrile polymer dispersion, an acrylic polymer dispersion, a polyvinyl acetate, a polyvinyl acrylate, a starch, and mixtures thereof.
8. The method of claim 1, wherein the binder further comprises a polymer selected from the group consisting of a polyurethane, a polyether, a polyester, a melamine-formaldehyde polymer, a vinyl halide, a vinylidene halide, a poly(ethyleneimine), a poly(vinyl amine), a poly(amine), a poly(imine), a poly(acrylate), and mixtures thereof.

9. The method of claim 2, wherein the filler is selected from the group consisting of silica, calcium carbonate, chalk, clay, titanium dioxide, aluminum oxides, talc and diatomaceous earth, mica, kaolin, barium sulfate, magnesium carbonate, vermiculite, graphite, carbon black, and mixtures thereof.
10. The method of claim 2, wherein the viscosity modifier is selected from the group consisting of an associative thickener, an alkali swellable thickener, an alkali soluble thickener, a polymer thickener, and mixtures thereof.
11. The method of claim 2, wherein the viscosity modifier is selected from the group consisting of a polyvinyl alcohol, a cellulose derivative, a hydroxyethyl cellulose, a hydroxypropyl cellulose, a carboxymethyl cellulose salt, a polyether compound, a urethane modified polyether compound, a polycarboxylic acid compound, a sodium salt of a polycarboxylic acid compound, a polyvinylpyrrolidone, a polyoxyethylene derivative, a polyethylene glycol ether, a polyethylene glycol distearate, a sodium alginate, an inorganic material, a sodium silicate, bentonite, and mixtures thereof.
12. The method of claim 2, wherein the dispersant is selected from the group consisting of an inorganic dispersing agent, a sodium salt of a polycarboxylic acid, a sodium salt of fused naphthalene sulfonate, an ammonium salt of fused naphthalene sulfonate, a polyoxyalkylene alkyl ether of phenol ether, a sorbitan fatty acid ester, a polyoxyalkylene fatty acid ester, a glycerin fatty acid ester, a polyoxyethylene styrene phenol, a sodium tripolyphosphate, a sodium hexametaphosphate, an organosilanol derivative of tung oil, an organosilanol derivative of linseed oil, a rapeseed oil, and mixtures thereof.
13. The method of claim 2, wherein the lubricant is selected from the group consisting of calcium stearate, tall oil, polyethylene glycol, a polyethylene emulsion, and mixtures thereof.
14. The method of claim 2, wherein the pH adjusting agent is selected from the group consisting of sodium hydroxide, potassium hydroxide, sodium hydrogen carbonate, ammonium hydroxide, ammonia, amines, triethanolamine, 3-dimethylaminoethanol, and mixtures thereof.

15. The method of claim 1, wherein at least one of:
 - a. the binder is present in the coloring composition in an amount from about 0.1 to about 99.9% by weight of the total wet weight of the binder in the total coloring composition; and
 - b. the coloring agent is present in the coloring composition in an amount from about 0.01 to about 99.9% by weight of the total coloring composition.
16. The method of claim 1, wherein at least one of:
 - a. the binder is present in the coloring composition in an amount from about 5 to about 60% by weight of the total wet weight of the binder in the total coloring composition; and
 - b. the coloring agent is present in the coloring composition in an amount from about 0.1 to about 50% by weight of the total coloring composition.
17. The method of claim 2, wherein at least one of:
 - a. the binder is present in the coloring composition in an amount from about 0.1 to about 99.9% by weight of the total wet weight of the binder in the total coloring composition;
 - b. the coloring agent is present in the coloring composition in an amount from about 0.01 to about 99.9% by weight of the total coloring composition;
 - c. the filler is present in the coloring composition in an amount from 0 to about 65% by weight of filler in the total weight of the coloring composition;
 - d. the viscosity modifier is present in the coloring composition in an amount from 0 to about 15% by weight based on the total weight of the coloring composition;
 - e. the dispersant is present in the coloring composition in an amount from 0 to about 10% by weight based on the total weight of the coloring composition; and
 - f. the lubricant is present in the coloring composition in an amount from 0 to about 10% by weight based on the total weight of the coloring composition.
18. The method of claim 1, wherein at least one of:
 - a. the colored paper has a light fastness of at least about 80 hours as measured by BASF Lightfastness Test;

- b. the colored paper has a bleed of no more than about 4 (Slight) as measured by BASF Bleed Fastness Test; and
 - c. the colored paper has a rub off of no more than about 4 (Slight) as measured by BASF Rub Test.
19. The method of claim 1, wherein the colored paper has 30% to 70% less coloring agent and the same color shade as compared to a colored paper prepared by a method of coloring pulp and forming a paper.